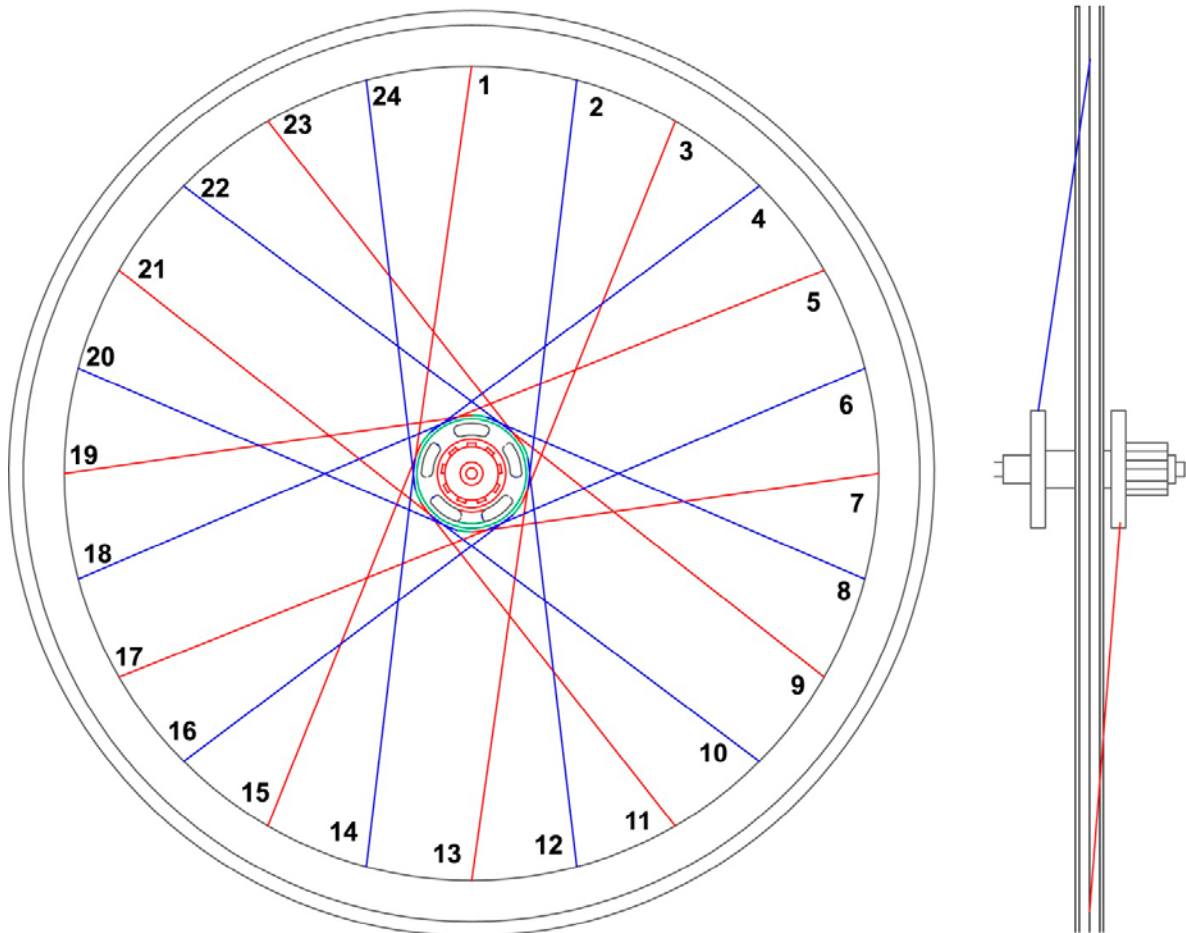


wheel owner information



Congratulations, you have just purchased the best hand built wheels available. These wheels represent more than 50 years of experience by the founders of Pro-Lite. You can be sure that unlike other wheels, when you buy Pro-Lite you are buying not just quality, but years of experience both on and off the bike, coupled with a dedication to quality that is unrivalled in the bicycle industry. It's our job to make sure you get the best product money can buy.

The materials that go into producing Pro-Lite wheels are carefully selected from suppliers to the military, aerospace and space industries.

Certain brands claim they hand built wheels, but actually their wheels are assembled in a machine and only trued by hand. At our workshop we have no wheel building machines – each wheel is assembled and trued by hand. The spoke tension on every Pro-Lite spoke is checked at least six times before de-stressing, using DT Swiss spoke gauges. Each wheel is inspected by no less than three people before a pass certificate is issued. Our team of eight quality control managers are trained to do things the hard way; there is no short cut to perfection.

Please inspect and save all packing materials that came with your wheels. If there is any damage to the packaging or to the wheels it is important to advise your dealer at once. Also make sure you register your warranty. This can be done on our website www.pro-lite.net or by mailing the card that came with your wheels back to Pro-Lite HQ in Taiwan.

Your Pro-Lite wheels are designed, engineered, and manufactured to aerospace specifications and tolerances, and therefore require special attention and care. We strongly advise you not to adjust or replace any parts on the wheels yourself. We have set up authorised service centres with trained mechanics to service Pro-Lite wheels. Pro-Lite wheels will serve you for many years as long as you have them serviced and repaired at Pro-Lite service centres.

PRO-LITE 

CARBON RIM / BRAKE PAD COMPATIBILITY

The material composition of Pro-Lite carbon rims is not the same as other carbon rims – USE ONLY Pro-Lite brake pads with Pro-Lite carbon rims. Other brake pads will likely damage your rims. Use of any other brand of brake pads, even if designed specifically for carbon rims is not recommended and will void all warranty claims.

PRO-LITE 

ALLOY RIM / BRAKE PAD COMPATIBILITY

Use Pro-Lite Carbon/alloy rim brake pads with Pro-Lite aluminium braking surfaces. Other brands of brake pads will work, but some may cause premature wear to the braking surface of the rim. We do not recommend using Campagnolo pads.

PRO-LITE 

QUICK RELEASE TENSION

To minimise rolling resistance your hubs are setup to very specific and precise tensions. Over-tightening the quick release can effect hub performance, and in extreme cases, may cause threads on the quick release axle to become stripped, a potentially dangerous situation. To avoid over-tightening, or as a rule of thumb, tighten quick release very firmly, but without excessive force. There are no industry standards but if you have to use an extra effort to close the quick release, chances are you are over tightening it. Any good bicycle shop will show you how to get the right feel for the right tension.

PRO-LITE 

RIM CLEANING

Clean rims only with soapy water. Solvent or oil based cleaners will cause damage to, in particular, carbon rims.

If removing glue from tubular rims, do so gently and carefully. Using new glue mixed with the old glue on the rim will often loosen the old glue and allow removal by simply wiping away excess glue.

PRO-LITE 

HUB CLEANING AND MAINTENANCE

Clean hub exterior only with hot soapy water and a brush. Avoid solvent-based cleaners. Clean the nipples, the flange area, the freehub body, and the quick release. Periodically oil nipples, flange area, quick release and inside the hollow axle. When applying grease use non-lithium based greases that will operate between -20 c and +40 c.

Pro-Lite hubs are built to specific and precise tensions. If a hub requires maintenance we recommend sending it to an authorised service centre. Otherwise, ensure that a qualified bicycle mechanic rebuilds the hub to the optimum performance: smooth running but without excess play.

Occasionally you might remove the cassette body from the hub and clean out the drive mechanism. It is not necessary to remove the cassette for this operation, but you can if you wish. This mechanism is incredibly robust and well sealed, but removing dirt that builds up is often helpful.

To disassemble the front or rear hub, please follow the separate instructions available from the Pro-Lite website.

Complete instructions for hub maintenance are posted on our website.

As of February, 2011, we have also begun providing video instructions for servicing Pro-Lite hubs.

PRO-LITE 

FAQ: My Bolzano hubs have a rocking feeling.

Although highly undesirable in regular hubs, this slight 'rocking' is intentionally designed into our Bolzano design hub and bearings. It eliminates any side-loading of the bearings, reducing both friction and rolling resistance. In addition, when tightening the quick release, the hub will not add any additional friction to the system, you can't over tighten an angular contact bearing—the same cannot be said for cup-and-cone hubs.

Go to section above? Our hubs are designed to ensure the lowest possible rolling resistance and thus the fastest possible ride. Although the play can feel disconcerting while tuning up your bike, be assured that this play is eliminated as soon as you climb aboard your bike.

PRO-LITE 

VALVE EXTENSIONS

Many Pro-Lite rims have deep sections. These require the use of inner tubes with long valves, or standard valves plus a valve extension (you should be able find these in the high end bike shops.)

Deep section rims sometimes produce a knocking sound caused by the valve moving when the wheel rotates. Wrapping something such as a thin layer of PTFE tape around the valve extension will eliminate the knocking. We also recommend not buying tyres with short valves and try to use two valve extensions screwed together on 90 mm deep rims.

PRO-LITE 

Why do my hubs have play in them?

Pro-Lite hubs are set up for precision performance when the rider is riding the bike. As a consequence, it is NORMAL for new Pro-Lite hubs to have a minute amount of play when the rider is NOT on the bike. However, if you can hear the rim rub on the brake pads when climbing out of the saddle, then the bearings do need to be re-set. Our experience shows that this is usually due to someone not re-setting the cones on the hubs correctly after taking them apart.

PRO-LITE 

FITTING TUBULAR TYRES

Always follow tyre manufacturer's instructions. If unavailable, follow guidelines below:

Fitting a tubular tyre to a new rim

- The tubular tire is made from a tire casing that is then sewn around an inner tube. The stitching is covered with a strip of cloth called "base tape". The tubular is then glued to a special rim, called a tubular rim. The tubular system is not interchangeable with the common "clincher" system.
- Rims for tubular tires have a concave bed where the tyre is glued into place and lack the hooked sidewalls found in rims intended for clincher tires.
- Ensure the rim is spotless clean for the first time of applying glue, do not use solvent, only use pure alcohol or hot soapy water and do not attempt to apply any glue before it is fully dry.
- The safety of the rider depends on the best possible gluing procedures. A clean work area is important, as is time and patience. Ideally, it would be best to have 48 hours to bond a tubular to the rim. This would allow for full drying of base coats. It is possible to glue a tire in a shorter amount of time, but it is important to understand that tubular adhesive requires time for proper curing. The bond strength increases after the tire is initially mounted.
- When fitting a tyre to a new rim we recommend pre stretching the tyre well in advance of trying to fit it.
- You need to hold the wheel either in a vice or a wheel jig. Apply a thin layer of tubular tyre glue to the surface of the rim. Leave for 20 minutes to cure. Apply a second layer of glue and leave for 24 hours. If using rim tape, apply evenly and leave for 3–4 hours to cure.
- Just prior to fitting tyre, pre-stretch the tyre again by standing on one end while pulling upwards with the other until you feel it stretch. Work your way around the tyre twice repeating this action.
- Install valve first and work the tyre onto the rim in one direction back to the valve.
- If valve is not straight, pinch the tyre and lift it working your way around the rim so that you end up with the valve at 90 degrees to tyre.
- Once fitted, inflate tyre partially to about 40 psi.
- Stand behind the wheel and spin it. The tyre you be evenly seated on the rim, running straight (parallel) with the rim. If not, adjust by pinching, lifting, and re-positioning tyre.
- Leave overnight before fully inflating.

Replacing a Tyre

Replacing the tyre is simpler as some glue will still be on the rim. On top of this, spread a new layer of glue. Leave it for about 20 minutes and then fit your pre-stretched tyre and inflate to around 40 psi. Leave overnight and you should be able to use the wheel immediately.

Best way to deal with punctures on the road is to carry a spare used tyre and some tub tape. The used tyre will have glue residue on it and can be fitted, pumped up, and ridden immediately. This however is a TEMPORARY SOLUTION intended to get you home – do not ride fast or corner hard. You still need to re-glue a new tyre.

If you get a puncture on a ride and need to change the tyre its best you carry a spare that has been used. These will have traces of glue on them and then you can simply put the tyre on, pump it to around 90 psi and ride home. Remember not to corner too hard. It is also advisable to use tub tape to be safe when replacing a punctured tyre out on the road. This increases safety and reduces the risk of the tyre twisting or even rolling off.

Some glues such as 3M Fast Tack are too strong to be used on carbon fibre rims – removing glue can damage rims. Do not use solvent-based solutions to remove glue.

Do not sand off hardened glue from carbon fibre rims.

If you want to remove a build up of glue from a carbon tubular rim, then try applying a thin layer of glue, leaving it for about 10 -15 minutes and work the area with an old toothbrush. This will loosen the glue build up and you can wipe it with an alcohol soaked rag. It is highly recommended not to try to remove all the glue from the rim in order to clean it as this glue forms a base to support the tubular tyre and helps increase bonding over time.

TUFO Glueing Tape works well but in temperatures above 30° C (86° F.) it can become very sticky, so carry a spare roll when you are out riding to replace the one on the rim if you puncture.

The internet, local cycling clubs, and specialist cycle shops are all good sources for information and instructions on how to maximise the use of tubular tyres.

Recommended Glue- Vittoria clear or Continental Rim cement.

Recommended tub tape - Tufo Extreme Tape.

PRO-LITE

RIM TAPE

Many punctures are related to poor rim tape. We recommend Pro-Lite rim tape. It has been specially developed to withstand over 250 PSI, and will not slip or curl. If you need to remove the rim tape or replace it, make sure you use pure alcohol to clean the rim before applying the tape to ensure good adhesion and grip.

PRO-LITE

CLINCHER RIMS & TYRE PRESSURE

Pro-Lite clincher rims are more rigid than most other carbon fibre rims. This means that the possibility of a tyre under high pressure coming off during heavy braking is very low. Therefore, tyres can be pumped up to 150+ psi, but ALWAYS USE A QUALITY TYRE FROM A REPUTABLE BRAND.

PRO-LITE

TUBULAR RIMS & TYRE PRESSURE

Pro-Lite tubular rims are designed to withstand even higher pressure than clinchers and 200 psi should not cause any problems at all. Again we highly recommend the use of quality branded tyres.

PRO-LITE

SPOKE TENSION

Pro-Lite wheels are extremely taut (capable of withstanding 200 kg of pressure) and durable. They have been precisely prepared, assembled and tuned, as well as thoroughly tested in our workshop by our skilled technicians. They will stay true for thousands of kilometres. However, even our wheels will at some point need re-truing. In this situation we strongly recommend sending your wheels to an authorised Pro-Lite service centre. There our technicians are trained to bring your wheel back to optimum condition. In this manual you can also find the details of the spoke tensions required for each wheel in our range. Please note we only use DT Swiss spoke tension gauges in our workshop.

Fig 1: DT spoke gauge

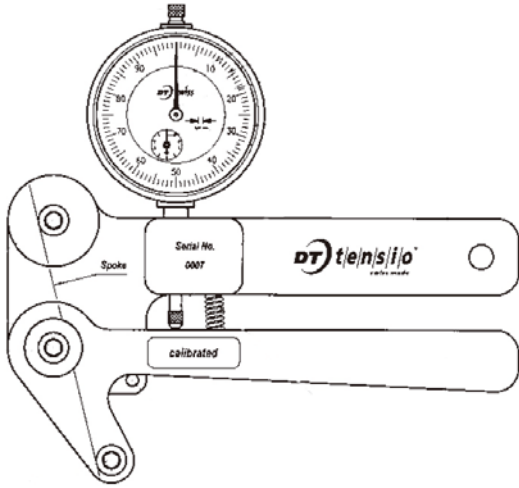


For instructions on how to use this, please see the Technical Information section on our website for a link to the manual for this tool, reproduced with permission from DT Swiss.

Please note that some adaptations may need to be done for the Bolzano Hub.
(see next page)

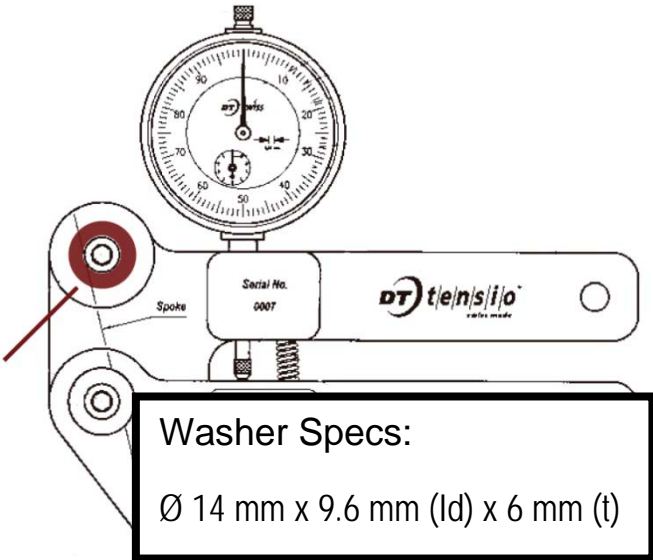
PRO-LITE Solution:

Adaptation of the DT SWISS spoke gauge for use with the Pro-Lite Gavia



The original DT SWISS gauge shown on left, which is suitable for drive side spokes on all EXCEPT Bolzano hubs.

To obtain the correct value of spoke tension from the DT gauge on non drive side spokes and Bolzano large flange hub, you need to add a 6mm thick washer as shown.



Washer Specs:
Ø 14 mm x 9.6 mm (ld) x 6 mm (t)